

ABSTRACT OF DISCLOSURE

A method of treating a semiconductor wafer thermally and a semiconductor wafer fabricated thereby and, more particularly, a method of producing a wafer ideal for fabricating semiconductor devices thereon through thermal treatment. The method of removing defects contained in single crystalline semiconductor by treating the wafer thermally includes the steps of carrying out a first heat treatment on the wafer at a temperature equal to or higher than 1200°C, and carrying out a second heat treatment on the wafer at a temperature equal to or lower than 800°C. A semiconductor wafer which is fabricated from a single crystalline semiconductor in accordance with the present invention is characterized in that the wafer is produced from a single crystalline semiconductor ingot which is formed by removing an OiSF ring by means of moving the OiSF ring from a center of a single crystalline semiconductor growth axis to a circumference and by extending a first area and a second area in which delta (O_i), as oxygen concentration difference between initial oxygen concentration and oxygen concentration after heat treatment in N₂ ambience at 1000°C for 64 hours, is more greatly increased than other areas; that grown-in defects are removed from the wafer by heat treatment; that bulk micro-defects are formed in the wafer; and that a defect-free layer is formed from a surface of the wafer to a predetermined depth.